

Claims

- [c1] 1. A direct memory access method for a card reader, said card reader including a direct memory access controller and being coupled to a system, said system including a main memory and a control software, said system executing a driver program to control said card reader, said method comprising:
- a. allocating an area of said main memory;
 - b. establishing a reading table via said control software;
 - c. setting a parameter set group based on said reading table and moving said parameter set group to said area of said main memory;
 - d. acquiring an initial address of said parameter set group;
 - e. reading a parameter value from said initial address;
 - f. using a direct memory access method to move data based on said parameter value;
 - g. repeating said steps e and f before reading all said parameter values; and
 - h. sending out an interrupting signal to said system.
- [c2] 2. The method of claim 1, wherein said reading table is established based on a block status recording area of a

memory card.

- [c3] 3. The method of claim 1, wherein said parameter set group is moved by said driver program.
- [c4] 4. The method of claim 1, wherein said parameter set group at least includes a parameter set.
- [c5] 5. The method of claim 1, wherein said initial address of said parameter set group is provided by said driver program to said direct memory access controller.
- [c6] 6. The method of claim 1, wherein each parameter set of said parameter set group includes an origin address of said data and a target address of said data.
- [c7] 7. The method of claim 1, wherein said parameter set group at least includes a plurality of parameter sets and each of said plurality of parameter sets assigns a direct memory access range.
- [c8] 8. The method of claim 7, wherein at least one of said plurality of parameter sets includes a parameter indicating an initial address of a following parameter set.
- [c9] 9. A method for programming a direct memory access controller for a card reader, said card reader including the direct memory access controller and being coupled to a system, said system including a main memory and a

control software, said system generating a driver program, said control software establishing a reading table, said driver program setting a parameter set group based on said reading table and moving said parameter set group to an area of said main memory, said system executing said driver program to control said card reader, said method comprising:

- a. said driver program providing an initial address of said parameter set group to said direct memory access controller;
- b. according to said initial address, said direct memory access controller reading a parameter value, which has not been read, from said parameter set group in a pre-determined sequence;
- c. said direct memory access controller using a direct memory access method to move data based on said parameter value; and
- d. repeating said steps b and c before reading all said parameter values.

[c10] 10.The method of claim 9, wherein said reading table is established based on a block status recording area of a memory card.

[c11] 11.The method of claim 9, wherein said parameter set group at least includes a parameter set.

- [c12] 12. The method of claim 9, wherein each parameter set of said parameter set group includes an origin address of said data and a target address of said data.
- [c13] 13. The method of claim 9, wherein said parameter set group at least includes a plurality of parameter sets and each of said plurality of parameter sets assigns a direct memory access range.
- [c14] 14. The method of claim 13, wherein at least one of said plurality of parameter sets includes a parameter indicating an initial address of a following parameter set.